PENDOCAM HD VCHD5

Digital Camcorder

User Manual

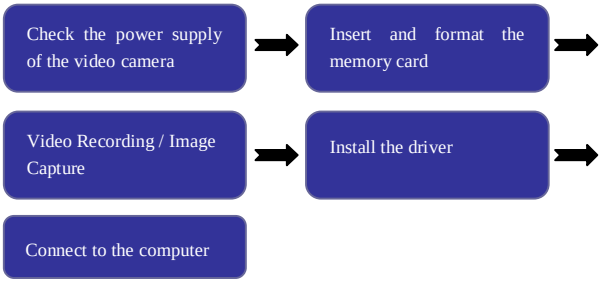
Preface

Thank you for purchasing this digital video camera. This user manual must be carefully read before operating the device. Please make sure that you keep this manual safely stored for future reference.

The contents covered by this manual refer to the latest information when it was compiled. The screen display, illustration and other instructions contained herein are used to specifically and directly describe the operation of this video camera. Due to the difference in technical development and period of production, there may be slight differences between the information in this manual and the actual device.

Description

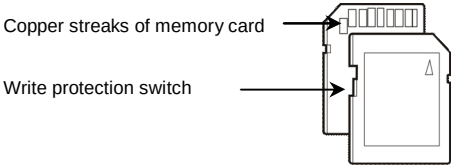
The video camera should be used in the order described in the diagram below:


Check the power supply of the video camera
Insert and format the memory card
Video Recording / Image Capture
Install the driver
Connect to the computer

⚠ Note: if using a newly bought memory card or a card previously used in another digital camera/video camera, it must be formatted first using this video camera. Before formatting your memory card, make sure to backup all important data using other media such as USB flash drives, internal/external hard disk drives or DVDs/CDs, etc.

Instructions

The video camera has no built-in memory, and therefore SD cards and MMC cards (multi-media memory card) should be used. SD cards have write protection switches to prevent accidental deletion of data or formatting.



Pushing the switch on the SD card to the bottom will enable write protection. Pushing the switch on the SD card to the top will disable write protection. Before capturing videos and images, please push the switch on the SD card to the top.

Application description of the memory card

- When a newly bought memory card is used or the memory card contains data/images (from other video cameras) which cannot be recognized, the memory card must be formatted first before use.
- The video camera must be switched off before inserting or removing the memory card.
- The reliability of the memory card will be reduced over time. If the data in the memory card becomes corrupted or the memory card itself gets corrupted, a new card will need to be used.
- The memory card is a delicate electronic device. It must not be bent, dropped or placed under heavy pressure.
- It is not advisable to put the memory card in or near other devices or areas that emit strong electromagnetic fields, such as amplifiers or TV receivers.
- The memory card must not be used in extremely hot or cold conditions.
- Always keep your memory card clean. Prevent any liquid from coming into contact with it. Make sure to wipe any liquid with a soft dry cloth before use.
- Place the memory card in its case when not in use.
- Please be aware that the memory card will become warm after prolonged usage which is normal.

- It is not advisable to use memory cards previously used with other digital video cameras or digital cameras. These memory cards must be formatted in this camera first before it can be used.
- Memory cards formatted in other digital video cameras or other card readers may not be usable in this camera.
- If one of the following situations occur, the recorded data may become corrupted:
  - The memory card is misused or handled improperly.
  - Power loss or the memory card is taken out during recording, deleting, formatting or reading.
- Make sure to backup all important data using other media such as USB flash drives, internal/external hard disk drives, DVDs/CDs, etc.

Care and Maintenance

When the video camera is not in use, keep it in a dry place and remove the battery from the device.

- Use the wrist sling while operating the device to avoid unintentional damage.
- Proper protective case must be used to prevent camera lens and display screen damage. If the surface of the camera lens requires cleaning, remove the dust first by blowing air to it and then use a dry cloth or paper and lightly wipe the camera lens (Note : Use only a prescribed cleaning kit for cleaning optical equipment to prevent damage). If necessary, detergent can be used to wipe the camera lens. Never use organic solvent to clean the video camera.
- Never touch the surface of the camera lens.

System requirements

Connecting this digital video camera to your computer requires that your computer meets the minimum system requirements. It is strongly recommended to use a computer with better specifications in order to maximize the functions of the video camera.

Minimum System Requirement:

System Required	
Operating System	Microsoft Windows 2000, XP, VISTA, 7
Central Processing Unit	Intel Pentium III667 or higher
Memory	128 MB or More
Sound and Video	Must be able to support DirectX8 or higher versions
CD-ROM	Quad (4X) speed or Higher
Hard disk	At least 1GB of free space
Others	One standard USB 1.1 or USB 2.0 interface

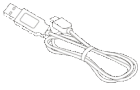
Features

The video camera has several features and functions:

- Digital video camera
- Digital camera (Five Megapixels)
- Mass Storage (Removable storage)
- Webcam (Requires a compatible PC)
- 8X Digital Zoom

Accessories

After opening the package of the video camera, you can see the following main fittings:



USB cable

Installation CD

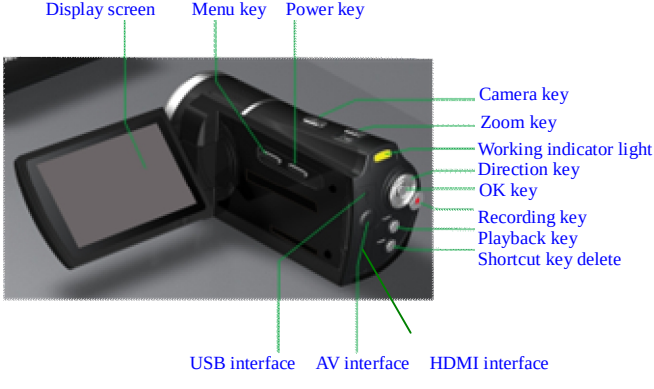
User manual

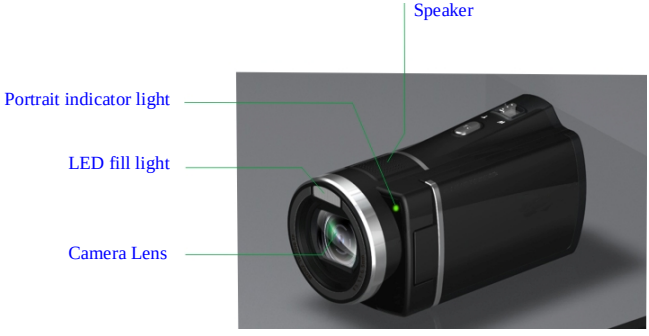
AV cable

Rechargeable Li-ion Battery
3.7V 800mAh
CAUTION
• CHARGE ONLY WITH SPECIFIED CHARGER
• DON' T DISPOSE OF INTO FIRE
• DON' T EXPOSE IN TEMPERATURE OVER 45°C
• DON' T DISASSEMBLE

Lithium Battery

Knowing your Video Camera




Speaker
Portrait indicator light
LED fill light
Camera Lens

Wrist sling button
Wrist sling
Microphone

Function of keys and indicator lights of the video camera

Key/Indicator Light	Function
Power Key	Power on and off the camera.
Record Key	Record image.
Camera Key	Take photos.
Zoom Key	Digital zoom, zoom in/out photo (playback mode).
Menu Key	Open/close the menu.
Playback Key	Enter/exit playback mode.
Up Key	Select menu and move photos (when the photo is enlarged). Pause playback.
Down Key	Select menu and move photos (when the photo is enlarged)，close the screen
Left Key	Select file and menu, open the fill light and move photos (when the photo is enlarged).
Right Key	Select file and menu, move photos (when the photo is enlarged). Camera mode shift.
OK Key	Confirm, play and stop playback
Shortcut Key / Delete Key	Enter shortcut key delete state.
Working Indicator Light	Lights up to indicate that a picture is being taken. Steady light will indicate if the device is connected to the computer.
Portrait Indicator Light	The light will shine during count down the process when in Portrait mode.

Start to use

Battery installation

The video camera uses four AAA alkaline batteries or an original rechargeable lithium battery. Before the battery is replaced, make sure the power switch on the camera is set to off.

Open the battery cover and insert the battery following the positive/negative pole indicator on the battery bin then close the battery cover.

SD/MMC memory card installation

Open the battery cover and insert the SD/MMC memory card into the groove for the memory card following the picture near the insertion point. To remove the memory card, press in the SD/MMC and release.

Note:

- Before removing the memory card, make sure that the device is turned off.
- Make sure that the SD/MMC card is properly inserted following the figure next to the groove. Inserting the card the wrong way may damage the card and/or the video camera.
- When the memory card is used for the first time or has been used in other video cameras, it should be formatted at first.

Open

Press the power supply for two seconds and then release to start the video camera.

Mode shift

In picture taking/recording mode, press the playback key to shift to playback mode. In playback mode, press the playback key to exit playback mode.

Recording
In recording mode, press the recording key to start recording and press the recording key again to stop the recording.

Picture taking
Under picture taking mode, press the camera key to take photos.

Playback
Press the playback key to enter playback mode to browse through photos and play videos.

Browsing photos: use the left key or right key to select photos and use the zoom key to enlarge the photo. Press the up/down/left/right key to move the photo.

Movie play: use left key or right key to select the movie you want to play and press the OK key to start the video. Press the OK key again to stop the video. During the play process, the playback can be paused by pressing the up key. Once the video has been paused, you can press the up key again to continue playing.

HDMI output
Connect the HDMI cable to the HDMI port in the camera and to the HDMI input port of the video equipment or HDMI compatible TV.

Note: please stop any recording/sound recording or playback before connecting the HDMI or disconnecting the HDMI cable.

TV output
To connect the device to a TV using the AV cable, connect the yellow port to the video input port on the TV and the red/white port to the audio input port on the TV.

Note: Please stop any recording/sound recording or playback before connecting or disconnecting the AV cable.

Close

To turn off the video camera, press and hold down the power key until the video camera turns off.

If the video camera stays in idle state and no operation is carried out beyond the set automatic close time (one minute/three minutes/five minutes), the video camera will automatically turn off to save power.

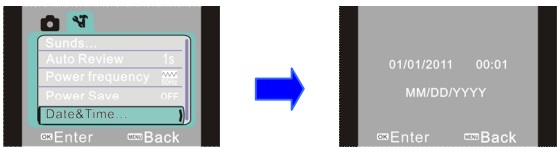
Menu setting

Under picture taking/recording and playback mode, press the menu key to open the menu and then press the up/down/left/right key to select an option. Press the OK key to enter the submenu. When selecting menu, the background of the selected menu option will be displayed with high brightness.

▲ Recording/picture taking menu

Date and time setting

Press the menu key to open the menu and then press the left and right key to enter setting menu. Press the down key to select the “date and time” menu option and press the OK key to enter setting window.



In setting window, press the left and right key to select the item to be adjusted (date and time), then the background of the selected item will be displayed in blue. Press the up key or down key to make the adjustment. After adjustment is completed, press the confirmation key for confirmation or press the menu key to cancel the setting and exit. Finally press the menu key to exit the setting mode.

Connecting to the computer

Install the drivers included in the installation CD before connecting the video camera to the computer.

Connect the power supply of the video camera and then use the USB cable to connect the video camera to the computer. USB mode is removable hard disk or PC camera. The video camera will automatically enter removable disk mode. To enter PC camera mode, press the playback key. [What does this paragraph actually mean? Can we tighten up or remove?]

Progressive operation

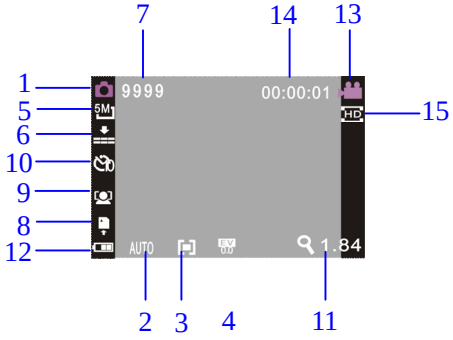
Picture taking/recording mode

The camera will automatically enter picture taking/recording mode after it is started.

Press the shutter key to directly take photos.
Press the recording key to start recording and press the recording key again to stop.
Press the T key or W key to zoom in and out.
Press the left key to open or close LED fill light (the fill light cannot be used under playback mode).

When the video camera is in idle state, press the down key to shift among the three screen display states, namely, close icon, close screen and normal display.

- Information displayed on the screen under picture taking/recording mode



Serial NO.	Icon name	Description
1	Picture taking mode	Indicates that the video camera is in picture taking mode. Picture taking can be carried out by pressing the shutter key
2	White balance	Indicates the current white balance setting
3	Photometry mode	Indicates current photometry mode
4	Exposure	Indicates current selected exposure value
5	Image Dimension	Indicates current dimension of Resolution of photo
6	Image quality	Indicates current selected image quality
7	Possible number of photos	Indicates the remaining number of possible photos

8	SD card	Indicates an inserted memory card and indicates that the SD card that is used has write protection
9	Face detection	Open face detection
10	Count down of portrait	Indications of count down during portrait mode
11	Focus indication	Indicates current digital zoom time
12	Quantity of electricity	Indicates current battery state. When displayed in red, it means that the battery is used up and the video camera will automatically close
13	Recording mode	Indicates that the video camera is in recording mode, press the recording key to carry out recording
14	Recording time	Idle time means remaining feasible recording time; record time means the recorded time
15	Video format	Indicates the resolution of current video

◆ Menu setting

Press the menu key to open the main menu of recording/picture taking and press the left and right key to select the menu. Press the OK key to enter the submenu. In the submenu, press the menu key or the OK key to return to the main menu and press the left and right key to make selection and finally press the OK key for confirmation. After returning to the main menu, press the menu key to exit the menu.

During menu selection, the selected menu will be highlighted in blue.

Recording menu option:

Main menu	Submenu	Description
	4032x 3000	12-million pixels Resolution
	3264 x2448	8–million pixels Resolution
	2592x1944	5-million pixels Resolution
	2048X1536	3-million pixels Resolution
	1280x720	Format with high Resolution
	640X480	Format with medium Resolution
	Excellent	Best image quality
	Good	Good image quality
	Normal	Common image quality
	Central photometry	The photometry depends on the central area
	Multi-spot photometry	The photometry depends on multi-spot
	Spot photometry	The photometry depends on one spot
	on	Open FD Photometry, optimize face automatically
	off	Close FD Photometry automatically
	Auto	Use automatic white balance, suitable for most situations
	Sunlight	Suitable for sunlit environment
	Cloudy	Suitable for cloudy environment

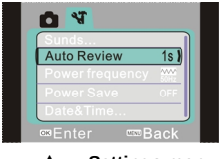
	Fluorescent	Suitable for working with fluorescent lamp light source
	Filament	Suitable for working with Filament lamp light source
Exposure	/	Use left and right keys to adjust exposure compensation
Recording mode	Close	Use common mode for taking single picture
	2s	Use portrait mode with 2 second delay
	10s	Use portrait mode with 10 second delay
	Successive	Use for successively taking photos
	picture taking	
Special effect	Normal	Normal effect
	B&W	Black and white effect
	Retro	Memorable / Aged effect
	Negative	Negative effect - shows dark areas as light and light areas as dark
	Red	Reddish effect
	Green	Greenish effect
	Blue	Bluish effect
Date Stamp	Off	Turn off Date Stamping
	Date	Show date stamp on picture / recording

	Date & Time	Show date and time on picture / recording
Face detect	On	Turn on face detection
	Off	Turn off face detection
Smile Capture	On	Turn on smile detection
	Off	Turn off smile detection
Blink detect	On	Turn on blink recognition auto-capture
	Off	Turn off blink recognition auto-capture

Settings menu

In Picture taking, recording or playback mode, press the Menu Key and press the left and right keys to enter the settings main menu. To navigate the settings menu use the up, down, left and right key to select menu and press the OK key to enter the submenu.

In the submenu, press the menu key or the OK key to return to the main menu and press the up key or down key to select and finally press the OK key for confirmation. To exit the main menu, simply press the menu key to exit from the menu.



▲ **Settings menu**

During menu selection, the selected menu will be displayed

Main menu	Submenu	Description
Sound	Shutter	Open/close
	Open sound	No/1/2/3
	Key sound	Open/close
	Volume	0/1/2/3
Auto Review	Off	No playback after picture taking
	1 second	Playback for 1 second after picture taking
	3 seconds	Playback for 3 seconds after picture taking
Power Frequency	50 Hz	Set the frequency of light source as 50 Hz
	60 Hz	Set the frequency of light source as 60 Hz
Power Save	1 minute	Automatic close under 1 minute of idle state
	3 minutes	Automatic close under 3 minutes of idle state
	5 minutes	Automatic close under 5 minutes of idle state
	Off	Disable power save feature
Date and time	/	Set date and time and format of the date
Language	English	Menu language is set to English
	French	Menu language is set to French
	German	Menu language is set to German
	Italian	Menu language is set to Italian
	Dutch	Menu language is set to Dutch
	Spanish	Menu language is set to Spanish
	Portuguese	Menu language is set to Portuguese
TV out	NTSC	The TV model is set to NTSC
	PAL	The TV model is set to PAL
Format	Yes/no	Format memory card
Reset All	Yes/no	Restore factory setting

When date and time is set, use the left key to select the item to be set and press the up key or down key to make the adjustment. Press the OK key for confirmation and press the menu key to cancel the setting and return to the main menu.

Picture taking/recording mode

The camera will automatically enter picture taking/recording mode once powered on. Press the camera key to start picture taking and press the recording key to start and stop the recording.

Press the T key or W key to activate digital zoom function.
The 10 second delay portrait can be activated by pressing the right key.

Portrait mode: press the camera key to start count down and the photo will be taken after 2 seconds or 10 seconds depending on the previous settings.

Enabling LED fill light: press the left light key to open or close the fill light. (The fill light cannot be used after entering playback mode.)

To shift among three screen displays, including close icon, close screen and normal display, press the down key during idle state.

Note:

- During recording, it is advisable that the video camera be kept steady by using a camera support, such as tripod, to get clear photos.
- After pressing the shutter key when taking pictures, the BUSY light indicator will light up. During this time, the video camera should not be moved. Once the BUSY light is off, the video camera can be moved. This is to stop photos from blurring.

◆ Menu setting

Press the menu key to open picture taking/recording main menu and press the down key or up key to select the appropriate menu and then press OK to enter the submenu. In the submenu, press the menu key or left key to return to the main

menu and press the down key or up key to select and then press the OK key for confirmation. After returning to the main menu, it is possible to exit from the menu by pressing the menu key.

During menu selection, the selected menu will be highlighted in blue.
Picture taking menu option:

Note: When adjusting exposure compensation in the exposure submenu, use the left and right key to adjust the exposure compensation value and the image brightness on the screen will change accordingly. After the setting is finished, press the OK key for confirmation and to return to the main menu. Then press the menu key again to exit.

Setting menu
The operation method is the same as the method used under picture taking/recording mode.

Playback mode

Use the playback key to enter playback mode.
Under playback mode, press the left key to select the previous file or press the right key to select the next file.

To play the file, press OK. The timer will be displayed on the upper right corner of the screen. To pause playback, press the up key. To resume playback press the record key. Press the menu key to stop playback.

When viewing photos, pressing the T key zooms in on the photo. Press OK to confirm. Use the up and down keys to move the photo.

Setting playback menu

Press the menu key to open the playback main menu and press the up key or down key to select the menu. Then press the OK key to enter the submenu. In the submenu, press the menu key or the OK key to return to the main menu. Then press the up key or down key to select and press the OK key for confirmation. Pressing the menu key exits the settings menu.

When selecting menus, the selected menu is highlighted as shown below.

▲playback menu

Picture menu options:

Main menu	Submenu	Description
File lock	Lock/unlock the file	Lock/unlock current file
	Lock all	Lock all files
	Unlock all	Unlock all files
File deleting	Delete the file	Delete current file
	Delete all	Delete all files
Slide play	Start	Start slide play
	Interval	1 s ~10 s
	Circulation	Yes/no
Sound memo	add	Add sound memo on picture
	Delete	Delete sound memo on picture

Note: each picture can contain a 30 second sound memo. To add a sound memo in playback mode, press press the OK key to start playing the sound memo, you can press the up key or Menu key to stop it.

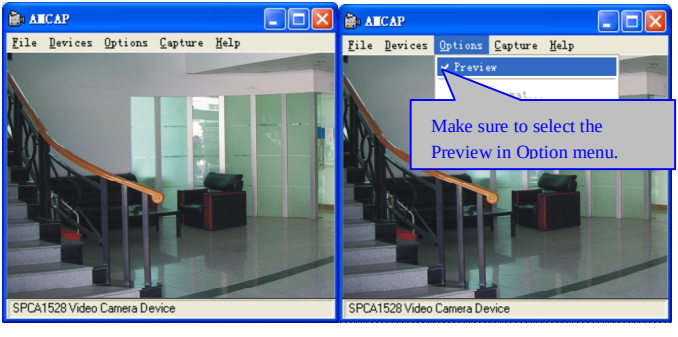
Download photo/video by connecting with the computer

After the video camera is connected to the computer, and enters removable disk mode, there will be a new removable disk icon displayed in the “My Computer” window. The photos or videos are saved in the “DCIM\100MEDIA” directory of the removable disk. After entering this directory, the files can be copied to your computer's hard disk.

Note: during the download process, the USB connection cannot be disconnected. When the USB is connected, the memory card should not be pulled out to prevent data loss.

Application of PC camera function

Before installing the application for the PC camera function, make sure that the camera driver has been installed on the computer. After the driver is installed, the “All Programs” menu in your Start Menu should reflect an “SPCA 1528 PC Driver” menu which has the shortcut icon Amcap . Once the video camera has been connected to the computer and has entered PC camera mode, click this shortcut icon (as shown on the picture) to open the AMCAP window. The video will be displayed in the AMCAP window. When the AMCAP software is not opened, the PC camera function application can send video images by network.



Installing driver and software

The accessory CD contains the camera driver as well as **MAGIX Video easy SE / MAGIX Photo Manager 9 software** (for photo and video processing).

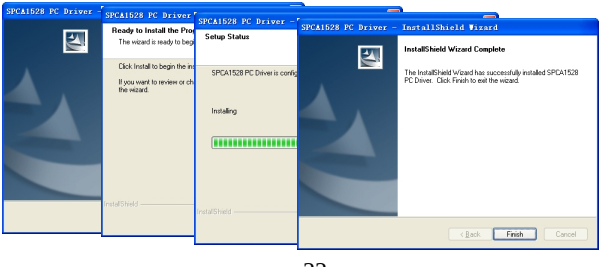
Installation interface

Insert the CD into the CD-ROM, the system will automatically run the installer from the CD, and the installation wizard window will launch as shown below.

(The installer may take several seconds to start, depending on the PC performance. If the installation window doesn't appear, please run "Windows Explorer", and select "SoftwareInstaller.exe" from the CD.)

Installing the driver

In the installation wizard window, click the "Install Driver" button and follow the wizard to install step by step.



Please restart the PC after installing the driver.

Run the software MAGIX Video easy SE / MAGIX Photo Manager 9, click the button in the wizard window and follow the prompt to install.
To launch, click the “Software operation explanation” button in the installation wizard window.

Specifications

Image inductor	5-million pixels CMOS image inductor
Photo resolution	12M (4032 x 3000), 8M (3264 x 2448), 5M (2592 x 1944), 3M (2048 x 1536)
Saver	built-in 32MB, available of an external SD card (between 4GB and 32GB)
File format	JPEG, AVI, WAV
Resolution of video	HD 1280X720，VGA 640×480
Portrait delay	2 s / 10 s
Digital zoom	8 times
White balance	Automatic / sunny day/ cloudy / fluorescent lamp / filament lamp
Exposure compensation	-2.0 ~ +2.0
USB interface	USB 2.0
TV output	NTSC / PAL
Display screen	2.7 TFT LCD
Power supply	Four AAA alkaline batteries, or one 3.7 V rechargeable lithium battery
Menu language	English/French/German/Italian/Dutch/ Spanish/Portuguese
Focus	f=6.5 mm
Diaphragm	F 3.1
Automatic close	1 minute / 3 minutes / 5 minutes
Operation system required	Windows 2000 / XP / Vista/Windows7
Size	122 mm × 63 mm × 55 mm

Note: The design specification of the product is based on the latest information when this manual is made. No further notice will be issued and may differ subject to the actual video camera bought by you.

Common issues and resolutions

The video camera will not start after the battery is installed	Insufficient battery charge / power. Replace / charge the battery.
	The package of the battery is not removed. Remove the battery from its packaging.
	The battery is not properly installed. Check if the battery is properly installed and seated. Re-insert the battery.
Picture taking and recording is not saved after pressing the shutter key	No memory card is inserted. Please check and make sure that a memory card is properly inserted.
	The SD card in the video camera has write protection. Take the SD card out and turn off write protection.
The photos are blurring	The camera was not stable when the picture was being taken. Hold the video camera firmly when taking a picture or stabilize the body of the video camera by mounting it on a camera tripod or other stable objects.
The photos or videos are dark	The light in the recording environment is insufficient. Ensure that you have sufficient lighting when recording to increase visibility / brightness.
The video camera automatically closes	Battery charge maybe insufficient. Replace or charge the battery.
	The video camera will automatically close when idle, to save electricity, depending on power save settings.
The files on the video camera cannot be deleted	The SD card in the video camera has write protection turned on. Take the SD card out and turn off write protection.